EXPLANATION OF SIGNIFICANT DIFFERENCE (ESD) #2

APACHE POWDER SUPERFUND SITE
Benson, Arizona

September 2000

I. INTRODUCTION

The purpose of this Explanation of Significant Difference (ESD) #2 is to further modify the soils cleanup remedy selected by the United States Environmental Protection Agency (EPA) in its September 30, 1994 Record of Decision (ROD) (Reference 1), and initially modified in a prior ESD (ESD #1) (Reference 2), dated April 16, 1997. The soils cleanup remedy was for the Apache Powder Superfund site in St. David, Arizona. The State of Arizona concurred with the remedy selected in the 1994 ROD and the 1997 ESD #1. EPA now is further modifying the soils remedy. This ESD #2 only addresses the soils media and does not address other media areas at the site.

Under Section 117 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendment and Reauthorization Act of 1986, and pursuant to 40 C.F.R. Section 300.435(c)(2)(i), 55 Federal Register 8666, 8852 (March 8, 1990), EPA is required to publish an Explanation of Significant Difference (ESD) when significant (but not fundamental) changes are being considered to a final remedial action plan as described in the ROD. EPA has made several important changes that modify the original ROD requirements but do not alter the hazardous waste management approach that EPA selected in the ROD. The changes will enhance the effectiveness of the remedy and promote more effective cleanup of the site. The purpose for each of these changes is described in detail in Section III of this document.

This document provides a brief background of the site, a summary of the remedy selected in the 1994 ROD for the soils media areas, a description of how this ESD affects the soils remedy originally selected by EPA in the 1994 ROD and expanded in the 1997 ESD, and an explanation of why EPA is making these additional changes to the ROD. EPA is issuing this ESD #2 in order to take into account information received by EPA during the on-going remedial design and remedial action cleanup activities related to the final cleanup of the soils contamination at the site.

This ESD #2 proposes to modify the previously selected remedies for the soils media components, and related waste materials, as follows:

(1) establish cleanup standards for compounds or Chemicals of Concern (COCs) (either recently detected or without ROD cleanup standards) identified in on-site soils, sediments or drums; and

(2) modify soils cleanup remedies to "no further action" for selected soils media components where hazardous substances were not detected or the levels of contamination do not exceed EPA's soils and waste cleanup standards.

This ESD and supporting documentation will become part of the Apache Powder Administrative Record. Copies of the Administrative Record for the Apache Powder site (including this ESD) have been placed at the following locations:

Benson Library
302 South Huachuca
Benson, Arizona 95602
(562) 586-9535

EPA Region 9 Superfund Records Center
95 Hawthorne Street, 4th Floor
San Francisco, California 94015
(415) 536-2000

EPA provided a fifteen (15) working day comment period for the State of Arizona in accordance with 40 C.F.R. Section 300.515(h)(3). The State of Arizona's comments on this ESD are summarized in Section IV of this document and are also included in the Apache Powder Administrative Record file. Pursuant to 40 C.F.R. Section 300.435(c)(2)(i), EPA will publish a notice summarizing this ESD in a major newspaper of general circulation. A formal public comment period is not required for an ESD.

II. BACKGROUND

A. Site Background and History

The site study area includes approximately 1,000 acres of land owned by Apache Nitrogen Products, Inc. (ANP). The site study area also includes areas of nitrate-contaminated groundwater and surface water located outside of ANP's property boundary. The site is bordered to the east by the San Pedro River (Figure 1).

ANP began operations in 1922 as a manufacturer of industrial chemicals and explosives, including nitroglycerin, nitric acid, ammonium nitrates, dinitrotoluene (DNT), and blasting agents. Currently, ANP manufactures nitric acid, solid and liquid ammonium nitrate, and nitrogeneous fertilizer solutions. ANP also distributes explosives materials to mining companies. These operations have produced both solid and liquid wastes which were historically disposed of on the property owned and operated by ANP.

Prior to 1971, ANP wastewater composed of wash-down and blow-down waters from its power house cooling tower, nitric acid plant, and from loading, unloading, and storage of raw materials and products was discharged on site into dry washes which flow directly into the San Pedro River. After1971, ANP's wastewater was discharged into unlined evaporation ponds on site causing sediment contamination of the ponds, and contamination of a perched groundwater zone, the shallow aquifer, and the surface water

of the San Pedro River. Dinitrotoluene (DNT) also was used at the site during the 1950s and 1960s, and drums which contained DNT were disposed of in a concentrated disposal area as well as throughout Wash 3, located in the northern part of the site. Other soil contaminants, including Trinitrotoluene (TNT), and unidentified waste materials were discovered in on-site soils or drums in other areas of the site during the 1980s and 1990s (see Figure 2). Most recently in 1998, perchlorate was detected in the shallow aquifer groundwater in the southern area and in soils adjacent to the operations area.

B. Soil Remedies Selected by EPA

Three soils media components at the site with specific COCs were identified in EPA's September 30, 1994 ROD (Reference 1):

- Media Component 3: Inactive Pond Soils and Sediments - antimony, arsenic, barium, beryllium, chromium, lead, manganese, and nitrate
- Media Component 4: White Waste Materials and Drum Storage Area - nitrate, vanadium pentoxide
- Media Component 5: Wash 3 Area - 2,4-dinitrotoluene (DNT), 2,6-DNT, lead, and paraffins

The ROD selected soil cleanup standards for all the above listed COCs, with the exception of the metals and nitrate identified in the inactive ponds. EPA did not select a cleanup standard for these COCs because the 1994 ROD selected capping as a remedy and soil removal was not planned.

After the issuance of the 1994 ROD, additional drums were discovered at the site with unknown, uncharacterized contents. EPA's April 1997 ESD #1 expanded EPA's remedial response to include remedial actions for belatedly discovered, on-site soil contamination. ESD #1 expanded the soils remedy to include the "characterization, removal, treatment, and off-site disposal of any previously unidentified waste materials discovered in any of the soils on site." If additional areas of soils contamination were discovered at the site, the cleanup would be addressed under CERCLA.

C. Investigative Results and Determinations Post-1994 ROD and 1997 ESD

The on-site areas of soils contamination discovered after the ROD include: 110-gallon drums inside of Wash 5 containing soils (later combined with DNT-contaminated soils); one 55-gallon drum in Wash 5 containing naphthalene; one "unknown" 110-gallon drum determined to contain di-ethylene glycol; drums of pure DNT and drums of mixed DNT and soil in Warehouse 244; buried asbestos-containing materials (i.e., pipe insulation, building materials) adjacent to inactive pond 4B; and TNT-contaminated soils

on a slope west of the facility's operations area. (The TNT-contaminated soils were subsequently cleaned up, as a Removal Action, pursuant to the requirements in EPA's November 9, 1999 Removal Action Memorandum.)

Additionally, waste materials previously identified as potentially contaminated in the 1994 ROD or the 1994 Feasibility Study, including the paraffins (Media Component 5), the ceramic packing materials (Media Component 4), and the miscellaneous construction materials (Media Component 4), subsequently were sampled and determined to be non-hazardous and, therefore, do not require remedial action.

Based on post-ROD investigation and analyses, and comparison to cleanup standards either established in the 1994 ROD or modified in this ESD #2, the soils media components at the Apache Powder Superfund site that require remedial action or a determination of "no further action" are expanded to include one additional media component area (Media Component 7) and the components are revised as follows:

- Media Component 3: Inactive Pond Soils and Sediments
  - Inactive Pond Sediments - nitrate and metals (see Section II.B above)
  - Edge of Inactive Pond 4B - asbestos-containing materials
- Media Component 4: White Waste Materials and Drum Storage Area
  - White Waste Area - arsenic-contaminated soils
  - Drum Storage Area - Drums containing vanadium pentoxide
  - Drum Storage Area - "Unknown" Drum containing liquid di-ethylene glycol
  - Ceramic packing materials *
- Media Component 5: Wash 3 Area
  - Temporary On-Site Storage Area (TOSA) - DNT-contaminated soil and drums excavated from the Wash 3 area
  - Wash 3 - DNT-type drums and DNT-contaminated soil
  - Paraffins *
- Media Component 7: Other Drums
  - Warehouse 244 - Drums containing pure DNT
  - Wash 5 - Drum containing naphthalene
  - Wash 5 - DNT-type drums containing soil

* Subsequent characterization has determined that these wastes are non-hazardous.

III. MODIFICATIONS TO THE ROD REMEDY

A. Establish Cleanup Standards for Compounds or Chemicals of Concern (COCs) (Either Recently Detected or Without ROD Cleanup Standards) Identified in On-Site Soils, Sediments or Drums

As discussed in Section II. B. and C. above, subsequent to the September 1994 ROD, several events occurred that impacted the previously selected soils remedies. On-site waste materials and unknown drums were discovered and subsequently analyzed for hazardous wastes or substances. Additional COCs were detected that were not previously included in the 1994 ROD's list of cleanup standards. Further, subsequent analysis of pond sediments identified for on-site capping indicated that the concentrations of metals in the sediments did not appear to exceed soils cleanup standards, but no such standards for this media component were selected in the 1994 ROD. Additionally, on December 4, 1997, the State of Arizona adopted new Soil Remediation Levels (SRLs) (Arizona Administrative Code, Title 18, Chapter 7, Appendix A), which are enforceable standards.

In order to select a remedy for these newly discovered areas of contamination or to modify the remedy for other selected soils media components that may or may not require further cleanup action, soils cleanup standards need to be established for additional compounds. Therefore, this ESD #2 establishes cleanup standards for the compounds or COCs listed below for the following media components (see Table 2, Comparison of Potential Soil Cleanup Levels and EPA's Selected Cleanup Standards for Contaminated Soils and Waste Materials). These cleanup standards are being established for the below listed compounds or COCs, which did not have cleanup standards selected in the ROD.

- Media Component 3: Inactive Pond Soils and Sediments
  - Antimony
  - Arsenic
  - Asbestos
  - Barium
  - Beryllium
  - Chromium (Total)
  - Lead
  - Manganese
  - Nitrate
- Media Component 4: White Waste Materials and Drum Storage Area
  - Arsenic
- Media Component 5: Wash 3 Area
  - Hydrocarbons (C10-C32)
- Media Component 7: Other Drums
  - Naphthalene
  - Di-ethylene glycol

The objective of this ESD #2 is to establish cleanup standards to be equivalent to the Arizona residential SRLs for these chemicals or compounds, unless the background concentrations are greater than the numerical SRLs. In such cases, the background level will be the cleanup standard. Although the current land use for the Apache Powder Superfund site is industrial, and ANP has indicated no interest in changing this land use,

the residential land use SRL is selected. The residential SRL is selected because it is more protective of public health than the non-residential SRL. Additionally, by selecting the residential SRL, institutional controls in the form of deed restrictions or other requirements will not be required for these specific areas of known soil contamination at the site.

B. Modify Soils Cleanup Remedies to "No Further Action" For Selected Soils Media Components Where Hazardous Substances Were Not Detected or Levels of Contamination Do Not Exceed EPA Selected Cleanup Standards

As discussed in Section II.B. and C. above, several waste materials (i.e., paraffins, ceramic packing materials, miscellaneous construction debris) either previously undiscovered or identified in the 1994 Feasibility Study (FS) were more extensively investigated and characterized to determine if the materials contained hazardous substances since the issuance of the ROD. Also, during 1999-2000, laboratory analyses were conducted on the contents of various drums. These drums were discovered in Wash 3 and Wash 5 either because recent erosion uncovered previously buried drums or by the use of geophysical methods. Other drums were located in the Drum Storage Area (Media Component 4), but the contents of the drums had not been characterized. Additional sediment sampling of the inactive ponds also was conducted because of uncertainties regarding the historical use of these ponds and whether the sediments did or did not contain hazardous substances exceeding cleanup standards.

The 1994 ROD also lists a selected cleanup standard of 0.0 mg/kg for paraffins (Table 1). This ESD #2 will revise the cleanup standard for paraffins to the Arizona residential SRL for Hydrocarbons (C10-C32), as shown in Table 2. Total petroleum hydrocarbons (TPH) are the compounds measured to evaluate the potential hazard of paraffins and the use of TPH as a standard for paraffins is consistent with the analytical method.

The results of these sampling and analysis activities indicate that various soils media components may not contain hazardous materials or may not exceed cleanup standards. This determination was made by comparing the concentrations of contaminants detected or not detected in the drum contents, waste materials, soils or sediments to the cleanup standards (Arizona residential SRLs) selected by EPA in Table 1. Based on comparison to these criteria, the following soil media component areas require "no further action:"

- Media Component 3: <u>Inactive Pond Soils and Sediments</u>
  - Inactive Pond Sediments - metals (do not exceed residential cleanup standards or background concentrations) (References 5 (EPA Document 0048-00830), 6 (0048-01174 & 0048–01175), and 7 (0048-01181).

- Media Component 4: White Waste Materials and Drum Storage Area
  - Ceramic packing materials (non-hazardous waste) (References 6 (0048-01174 & 01175), 7 (00648-01181), and 10 (0048-01187).
- Media Component 5: Wash 3 Area
  - Paraffins (non-hazardous waste) (References 4 (0048-00781), 6 (0048-01174 & 0048-01175), and 8 (0048-01176).

A summary of the field investigative activities and the resulting analytical data supporting these determinations, including confirmatory sampling results, are included in the reference documents identified for each media component area identified above.

IV. SUPPORT AGENCY COMMENTS

The Arizona Department of Environmental Quality (ADEQ) has reviewed this ESD #2 and provided the following comments. ADEQ concurs with EPA that State of Arizona residential Soil Remediation Levels (SRLs) are the appropriate cleanup standards for soil contaminants either recently discovered or without ROD selected cleanup standards. Because arsenic exists at the site in background concentrations above the Arizona residential SRL, it is appropriate that the cleanup standard for this contaminant should be its background concentration as prescribed in Arizona's Soil Remediation Standards Rule (Arizona Administrative Code, Title 18, Chapter 7, Article 2, Section 204).

Laboratory analyses of certain soils media at the site have shown that hazardous substances were either not detected or at levels below EPA's selected cleanup standards. Therefore, ADEQ also concurs with EPA that the remedy for these soils media should be changed to "No Further Action."

ADEQ's letter of September 27, 2000, further states that ADEQ has been adequately informed during the development of this ESD #2 and supports its conclusions.

V. STATUTORY DETERMINATION

EPA believes it is appropriate to establish these new cleanup standards for the soils contamination at the site (see Section III.A), and to modify the selected remedy for selected soils media components to "no further action" (see Section III.B) based on the fact that soil sediment data from samples collected post the ROD do not exceed the soil cleanup levels established by EPA in this ESD. EPA believes that the remedy for the soils cleanup activities at the Apache Powder Superfund site will remain protective of human health and the environment and will continue to comply with federal and state requirements that are applicable and relevant and appropriate to this remedial action. The selected remedies for the contaminated soils use permanent solutions to the maximum extent practicable, and satisfy the statutory preference for remedies that employ treatment

that reduces toxicity, mobility, or volume as a principal element in accordance with Section 121 of CERCLA. A five-year ROD review will be conducted to ensure that protection of human health and the environment continues to be achieved. While the changes and clarifications contained in this ESD #2 are significant, none of the proposed changes fundamentally change the remedy. EPA believes that by establishing these new cleanup standards and by modifying the remedy for selected soils media components, the soil cleanup remedies will be cost effective and accelerate the cleanup of the soils at the Apache Powder Superfund site.

VI. PUBLIC PARTICIPATION ACTIVITIES

EPA has presented these changes to the remedy in the form on an ESD because the changes are of a significant but not fundamental nature. EPA provided the State of Arizona with a fifteen (15) working day comment period on this ESD. EPA also is issuing a Community Fact Sheet discussing the soil cleanup activities completed at the site, and the newly selected cleanup standards for soil contaminants detected at the site that were not previously identified in EPA's 1994 ROD. In accordance with Section 117(c) of CERCLA, 42 U.S.C. Section 9617, EPA will publish a notice in the *San Pedro Valley News-Sun* and the *Arizona Daily Star* newspapers which describes this ESD and its availability for review. In accordance with 40 C.F.R. Section 300.435(c)(2)(i), this ESD and all documents that support the changes and clarifications are contained in the Administrative Record for the Apache Powder Superfund site.

Keith Takata — 9-29-00

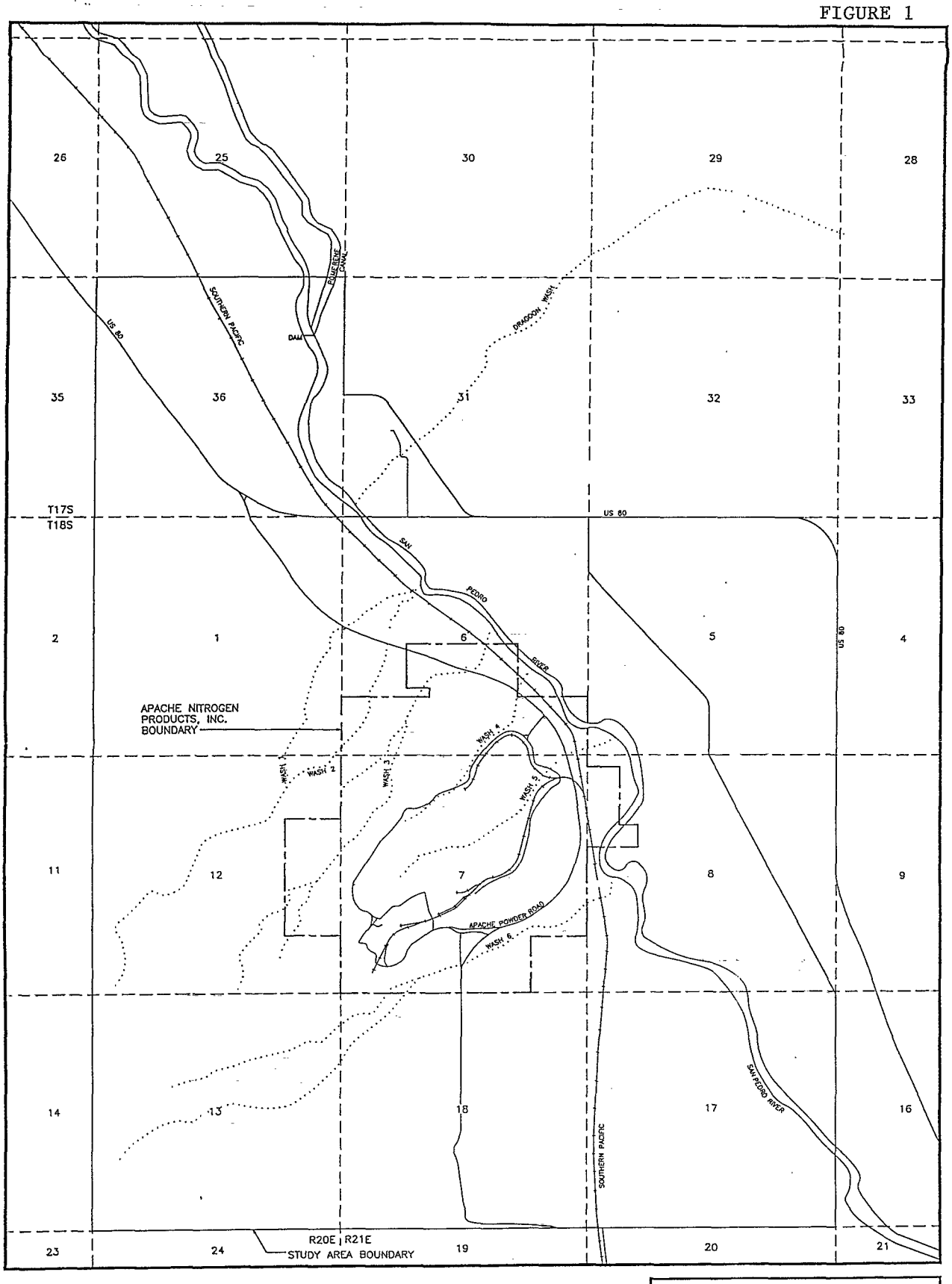
Keith Takata
Director, Superfund Division

Date

REFERENCES FOR ADMINISTRATIVE RECORD FOR ESD #2 - APACHE POWDER SUPERFUND SITE

1. EPA Record of Decision (ROD), Apache Powder Superfund Site, dated September 30, 1994.
2. EPA Explanation of Significant Differences (ESD) #1, Apache Powder Superfund Site, dated April 16, 1997.
3. Arizona Soil Remediation Levels (SRLs), Arizona Administration Code, Title 18, Chapter 7, Article 2, Appendix A, adopted December 4, 1997.
4. Hargis + Associates, Inc. *Wash 3 and Drum Disposal Area Investigation, Phase IV, Results of Drum Excavation and Storage, Apache Powder Products, Inc. Benson, Arizona*, July 28,1993.
5. Bechtel Environmental, Inc., *Feasibility Study Report for the Apache Powder Superfund Site, St. David, Arizona*, June 17, 1994.
6. Hargis + Associates, *Remedial Design Work Plan for Soils, Media Components 3, 4, 5, 7, and 8, Benson, Revision 2.0, Volumes I and II, Arizona*, July 13, 1998
7. Hargis + Associates, *Supplemental Feasibility Study Report, Apache Powder Superfund Site, Revision 1.0*, October 16, 1998.
8. Hargis + Associates Letter to Andria Benner, EPA, re: Results of Confirmatory Sampling: Paraffin Contaminated Soil, Apache Powder Superfund Site, January 7, 1999.
9. Hargis + Associates Letter to Andria Benner, EPA, re: Sampling Proposal, Impacted Soil, Wash 5 Area, Apache Powder Superfund Site, Cochise County, Arizona, May 10, 1999.
10. EPA Letter from Andria Benner to Kerstin Alter, Apache Nitrogen Products, Inc., Subject: EPA Approval for ANP to Dispose of Ceramic Packing Material, dated December 29, 1999, including Turner Laboratories preliminary and final analytical results dated December 23, 1999 and December 29, 1999.
11. Hargis + Associates Letter to Andria Benner, EPA, re: Proposed Sampling Methodologies, Media Components 4, 5 and 7, Apache Powder Superfund Site, Benson, Arizona, January 10, 2000.
12. Hargis + Associates Letter to Andria Benner, EPA, re: Transmittal of Laboratory data for Naphthalene Contaminated Soil, Apache Powder Superfund Site, January 12, 2000.
13. Hargis + Associates Letter to Andria Benner, EPA, re: Removal and Disposal of Unknown Drum, Apache Powder Superfund Site, Cochise County, Arizona, June 27, 2000.
14. Hargis + Associates Letter to Andria Benner, EPA, re: Asbestos Discovery Notification, Apache Powder Superfund Site, Cochise County, Arizona, August 2, 2000.

FIGURE 1



EXPLANATION

- WASH
- RAILROAD TRACKS
- PAVED ROAD
- T = TOWNSHIP
- S = SOUTH
- R = RANGE
- E = EAST

0 1,000 2,000
FEET

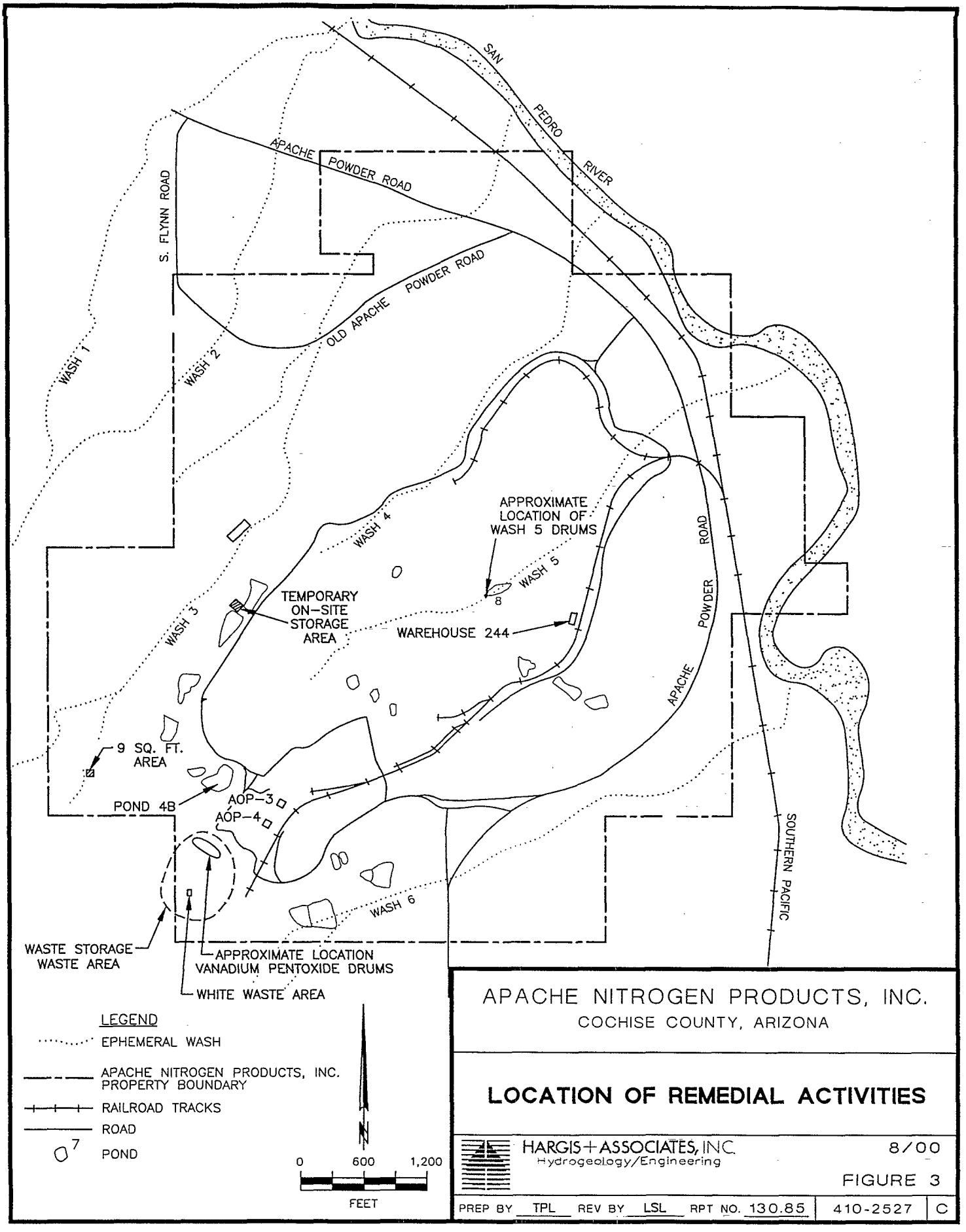
APACHE NITROGEN PRODUCTS, INC.
BENSON, ARIZONA

LOCATION OF REMEDIAL INVESTIGATION STUDY AREA AND APACHE NITROGEN PRODUCTS, INC. PROPERTY BOUNDARY

HARGIS + ASSOCIATES, INC 8/00

REVISION 0.0 FIGURE 2

FIGURE 2



APACHE NITROGEN PRODUCTS, INC.
COCHISE COUNTY, ARIZONA

LOCATION OF REMEDIAL ACTIVITIES

HARGIS + ASSOCIATES, INC.
Hydrogeology/Engineering

8/00

FIGURE 3

PREP BY	REV BY	RPT NO.		
TPL	LSL	130.85	410-2527	C

Table 12
Preliminary Remediation Goals (PRGs), Background Levels, Arizona Health Based Guidance Levels (HBGLs), Site-Derived, Risk-Based Levels, Arizona Hazardous Waste Management Act (HWMA) Treatment Standards, and Selected Clean-Up Standards for Chemicals of Concern in Soils at the Apache Powder Site

Media of Concern	Chemical	Back-ground[a]	Region IX PRGs	HBGLs	Arizona HWMA Treatment Standards	Site-Derived Risked-based Level[b]	Selected Clean-Up Standards
		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Inactive Pond Soils and Sediments	Antimony	4.47	11.0	47.0		38.2[c]	Capped in place
	Arsenic	12.02	0.97ca/23nc	0.76		25.8[c]	
	Barium	125.7	5,500	8,200		1,200[c]	
	Beryllium	0.94	0.4	0.32		513[c]	
	Chromium (total)	9.78	940.0	1,700		3.83[c]	
	Lead Manganese	14.27	500.0	500.0		NC	
	Nitrate as nitrogen	383.0	390.0	580.0		1,110[c]	
		140.05	100,000	190,000		84,500[c]	
White Waste Materials and Drum Storage Area	Nitrate as nitrogen	140.05	100,000	190,000		84,500[c]	190,000
	Vanadium	16.37	550.0	820.0		753.0[c]	820.0
	Vanadium pentoxide	NC	690.0	1,100.0		NC	1,100.0
Wash 3 (Excluding the Ash and Burn Area)	2,4-Dinitrotoluene (DNT)	0.0[d]	1.3	2.0	140.0	NC	140.0
	2,6-DNT	0.0[d]	1.3	120.0	28	NC	28.0
	Paraffins	0.0[d]	NC	NC		NC	0.0
	Lead	14.27	500.0	500.0		NC	500.0

Table 12. EPA's Selected Clean-up Standards for Soils

TABLE 2 - Comparison of Potential Soil Cleanup Levels and EPA Selected Cleanup Standards for Contaminated Soils and Waste Materials

ROD Media Component (a)	COC (a)	Background Concentration		EPA Region IX PRG (e)			Arizona SRL (g)		Site-Derived RBL (h)		EPA Selected Cleanup Standard ESD #2
		FS Report (c)	SRL Methodology (d)	Residential	Industrial	SSLGW (f)	Residential	Non-Residential	Future Resident (child)	Future Resident (adult)	
Inactive Pond Soils and Sediments (MC-3)	antimony	4.47	8.14	31.0 (i)	820.0 (i)	5.0 (i)	31.0	680.0	47	NC	**31.0**
	arsenic	12.02	19.23	0.39 (j)	2.7 (j)	29.0 (j)	10.0	10.0	NC	0.34	**19.23**
	asbestos (b)	ND	ND	NC	NC	NC	NC	NC	NC	NC	**NC**
	barium	125.7	193.23	5,400.0 (k)	100,000.0 (k)	1,600.0 (k)	5,300.0	110,000.0	1,503	NC	**5,300.0**
	beryllium	0.94	1.44	150.00	2200	63.0	1.4	11.0	NC	0.15	**1.4**
	chromium	9.78	13.87	210.00	450	40	2,100.0	4,500.0	NC	2	**2,100.0**
	lead	14.27	20.90	400.0 (l)	1,000.0 (l)	NC	400.0	2,000.0	NC	NC	**400.0**
	manganese	383.00	576.02	1,800.00	32,000	NC	3,200.0	43,000.0	1,269	NC	**3,200.0**
	nitrate-N	140.05	79.74	NC	NC	NC	100,000.0	1,000,000.0	192,431	NC	**100,000.0**
White Waste Area (MC-4)	arsenic	12.02	38.8	0.39 (j)	2.7 (j)	29.0 (j)	10.0	10.0	NC	0.34	**38.8**
Wash 3 Area (MC-5)	Hydrocarbons (C10-C32)	NC	NC	ND	ND	ND	4,100.0	18,000.0	NC	NC	**4,100.0**
Other Drums (MC-7)	Naphthalene	NC	NC	56	190	80	2,600.0	27,000.0	NC	NC	**2,600.0**
	Di-Ethylene Glycol	NC	NC	350.0	5,000.0	NC	370.0	3,900.0	NC	NC	**370.0**

Notes: All concentrations specified in milligrams of chemical per kilogram of soil

COC = chemical, compound, or constituent of concern
EPA = U.S. Environmental Protection Agency
FS = feasibility study
MC-# = media component as identified in Record of Decision
NC = not calculated
ND = not determined
PRG = Preliminary Remediation Goal
ESD = Explanation of Significant Difference
RBL = Risk-Based Level
ROD = EPA 1994 Record of Decision for the Apache Powder Superfund Site
SRL = Soil Remediation Level
SSLGW = calculated soil-screening level for groundwater

(a) As identified in EPA 1994 Record of Decision (ROD) for the Apache Powder Superfund Site, unless otherwise noted.
(b) Material discovered in 2000. Not designated as a chemical of concern (COC) in 1994 ROD.
(c) As listed in Table 2-15 of Apache Powder Superfund Site FS Report prepared by EPA/Bechtel, June 1994.
(d) Calculated according to methodology specified in Arizona Administrative Code (AAC) R18-7-204(B), using respective concentrations of all surficial background soil samples collected (i.e., SS-01 through -04, S-1, and S-2). The White Waste Area concentration was based on subsurface samples of St. David Clay with similar soil type collected from soil borings SB-1 and SB-2.
(e) EPA Region IX, San Francisco, California, Preliminary Remediation Goals as reported on "Table R9 PRG's: http://www.epa.gov/region09/waste/sfund/prg/s1_01.htm [through] /s1_06.htm.
(f) Using data for dilution attenuation factor (DAF) of 20X.
(g) As reported in AAC R18-7, Supplement 97-04, Article 2, Appendix A.
(h) Values were revised by Bechtel in an Interoffice Memorandum dated September 23, 1998 to correct values originally calculated in 1994. The revised values were included in the Supplemental Feasibility Study Report Apache Powder Superfund Site prepared by Hargis + Associates, October 16, 1998.
(i) Listed as "antimony and compounds" (CAS No. 7440-36-0).
(j) Listed as "*arsenic (cancer endpoint)*" (CAS No. 7440-38-2).
(k) Listed as "barium and compounds" (CAS No. 7440-39-3).
(l) Listed as "lead" (CAS No. 7440-39-3).